Request to Archive
With The National Centers for Environmental Information
For Global Forecast System (GFS) 0.25 Degree PGRB2
Provided by NCEP

2014-12-08

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

National Centers for Environmental Prediction (NCEP)

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

NCDC currently archives and provides access to 1.0 and 0.5-degree horizontal resolution GFS data. The GFS model data suite archived at NCDC is the most popular model dataset. It is the most downloaded product from NOMADS users.

Effective 17Dec2014, the National Centers for Environmental Prediction (NCEP) will upgrade the GFS Analysis and Forecast System to include new products at 0.25 degree horizontal resolution, and increased temporal resolution. The National Weather Service (NWS) Technical Implementation Notice (TIN) 14-46 describes the up-coming changes: http://www.nws.noaa.gov/om/notification/tin14-46gfs.htm.

NCDC currently archives GFS pressure-level data. After a scrub of user requirements, the estimated amount of data to archive would amount to 82.5GB/day, or 30TB/year--which is a 43% reduction of the pressure level data that will be available (143GB/day or 52TB/year).

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 2014-12-17
Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

N/A

6. Approximate date when the dataset was or will be released to the public:

2014-12-17

7. Who are the expected users of the archived data? How will the archived data be used?

The Global Forecast System model data suite archived at NCDC is the most popular user dataset. It is the most downloaded product from NOMADS. Effective 17Dec2014, the National Centers for Environmental Prediction

(NCEP) will upgrade the GFS Analysis and Forecast System to include products at 0.25 degree horizontal resolution. The National Weather Service (NWS) Technical Implementation Notice (TIN) 14-46 describes the up-coming changes: http://www.nws.noaa.gov/om/notification/tin14-46gfs.htm.

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

The National Weather Service (NWS) Technical Implementation Notice (TIN) 14-46 describes the up-coming changes: http://www.nws.noaa.gov/om/notification/tin14-46gfs.htm.

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

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10. List the input datasets and ancillary information used to produce the data.

GFS homepage: http://www.emc.ncep.noaa.gov/index.php?branch=GFS

11. List web pages and other links that provide information on the data.

NWS Technical Implementation Notice 14-46 describing changes to GFS:
http://www.nws.noaa.gov/om/notification/tin14-46gfs.htm
Google Drive document describing 0.25 degree data:
https://docs.google.com/a/noaa.gov/document/d/1MH1lcHaJ17EUroxXX9W5OzPUjH-foiNTzDS0d3kmqk0/edit?usp=sharing

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. GFS homepage: http://www.emc.ncep.noaa.gov/index.php?branch=GFS

13. Indicate the data file format(s).

1. GRIB 2

14. Are the data files compressed?

No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

GFS homepage: http://www.emc.ncep.noaa.gov/index.php?branch=GFS
NWS Technical Implementation Notice 14-46 describing changes to GFS:
http://www.nws.noaa.gov/om/notification/tin14-46gfs.htm
Google Drive document describing 0.25 degree data:
https://docs.google.com/a/noaa.gov/document/d/1MH1lcHaJ17EUroxXX9W5OzPUjH-foiNTzDS0d3kmqk0/edit?usp=sharing

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

NCEP servers: http://www.nco.ncep.noaa.gov/pmb/products/gfs/

17. What is the total data volume to be submitted?

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 82.5GB per Day
Data File Frequency: 372 per Day
Data Production Start: 2014-12-17

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

Model updates occur typically every year or two.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: National Centers for Environmental Prediction (NCEP)
System Name: NCEP FTP Server
System Owner: ftp.ncep.noaa.gov
Additional Information: ftp.ncep.noaa.gov/pub/data/nccf/com/gfs/para

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Direct download links
2. Advanced web services (e.g., THREDDS Catalog Service)

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

- Provide access to a unique dataset for researchers to study
- Maintain a viable model data archive of relevant datasets for NOMADS users

24. Are the data archived at another facility or are there plans to do so? Please explain.

No

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

No

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

No

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

N/A

29. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by: 2014-12-17

Accessible by:

30. Add any other pertinent information for this request.

None